

REMARKS

Claims presented for prosecution in this Application are claims 11-21, claim 21 being newly added. In view of Applicants' remarks below, Applicants respectfully submit that claims 11-21 are now in condition for allowance. Accordingly, Applicants respectfully request that the present Response be considered and entered, the rejections to the claims be withdrawn, and that the case now be passed to issue.

The Objections to the Drawings

With respect to the Examiner's objections to the drawings, Applicants have newly submitted red-marked drawing Figure 1, which now illustrates the recited 'driving mechanism', as originally filed.

Applicants assert that amended Figure 1 contains no new matter, and merely depicts structure which was previously discussed in the specification and claims as originally filed. Applicants therefore respectfully request that the outstanding objections to the drawings now be withdrawn.

The 35 U.S.C. § 112 First Paragraph Rejection of Claims 11-20

The Examiner has asserted that the subject matter of claims 11-20 is not enabled by the specification as originally filed. In particular, the Examiner has asserted that the 'drive motor/means and the 'system of gears' that produce the pivotal and rotational movements of the members 32 and 30' are not sufficiently disclosed in the specification as originally filed. Applicants respectfully traverse this assertion, and offers the following points and clarifications:

1) On page 6, lines 25-31; page 7, lines 12-32; and page 8, lines 1-7, a preferred embodiment of such a driving mechanism is described, as follows:

"The two rotors 20 and 30 are driven in rotation by a driving device (not shown in the figures). This driving device comprises, in a way known per se, a first pinion, which meshes with an annular gear of the suspension rotor 20, and a second pinion, which meshes with an annular gear of the control rotor 30. With the help of two motors and a differential mechanism, which are installed outside the casing 14, this driving device is suitable for driving in rotation the two rotors 20, 30, either with perfectly synchronised rotational speeds or with different rotational speeds." and

"The reference number 38 denotes in a general way an angular drive carried by the flange 26 of the suspension rotor 20. This angular drive 38 comprises a vertical input shaft 40, which is parallel to the rotation axis of the two rotors 20, 30 and which is fitted with a pinion 42 meshing with an annular gear 44 on the control rotor 30. It also comprises a horizontal output shaft 46, which is parallel to the pivoting axis of the chute 32 and which has two free ends, each provided with a crank 48, 48'. A system of gears interconnects the input shaft 40 and the output shaft 46 in such a way as to convert a rotation of the vertical input shaft 40 into a rotation of the horizontal output shaft 46.

Two connecting rods 50, 50' connect the two cranks 48, 48' symmetrically to two control levers 52, 52', each of which has roughly the shape of a right-angle bracket with two arms. For each of these two control levers 52, 52', the end of one of these arms is connected by an articulated joint to its connecting rod 50, 50', while the end of the other arm is connected by means of an articulated joint 54, 54' to the suspension rotor 20. These articulated joints 54, 54' define for each control lever 52, 52' on the suspension rotor 20 a pivoting axis substantially coaxial with the pivoting axis of the chute 32.

It was seen above that a rotation of the input pinion 42 of the angular drive 38 produces a rotation of the cranks 48, 48'. This is converted by the connecting rods 50, 50' into a symmetrical pivoting of the two control levers 52, 52' about their articulated joints 54, 54'. Now, a rotation of the input pinion 42 occurs if there is a difference in angular speed between the suspension rotor 20 and the control rotor 30. In other words, to cause the two control levers 52, 52' to pivot symmetrically about their articulated joints 54, 54', it is sufficient to drive the control rotor 30 at an angular speed different from that of the suspension rotor 20."

In light of the passages noted above, Applicants respectfully assert that one of ordinary skill in the art would certainly be apprised of how the drive motor and related system of gears produce the pivotal and rotational movements of the members 32 and 30.

Moreover, although the 'system of gears' that interconnects the input shaft 40 and the output shaft 46 so as to convert a rotation of the *vertical* input shaft 40 into a rotation of the *horizontal* output shaft 46 is not shown in detail in the drawing figures, Applicants again respectfully assert that such understanding is well within the knowledge of one of ordinary skill in the art. That is, one skilled in the mechanical arts, in general, as well as one skilled in the gearing arts, in particular, would surely not require any more disclosure (apart from what is discussed in the current specification) to enable the building of a gear system that is capable of transmitting a driving torque as between perpendicularly oriented output shafts.

Should the Examiner have any persistent concerns in this regard, or if the Examiner believes that the transmitting of a driving torque as between perpendicularly oriented output shafts has not been practiced, via a variety of known gearing means over the centuries, Applicants respectfully request that the Examiner contact Applicants' Representative to discuss the same. Withdrawal of the 35 U.S.C. § 112 first paragraph rejection of claims 11-20 is respectfully solicited.

The 35 U.S.C. § 112 Second Paragraph Rejection of Claims 17-20

The Examiner has rejected the subject matter of claims 17-20 as being indefinite for failing to define the necessary "datum" for the symmetrical half-levers 60' and 60", stating that "it is not known what the levers are symmetrical to". In response, Applicants have the following comments:

- 1) Applicants refer to Figure 4 and note that page 8, lines 6-8 state:

"It can be seen that the control lever 52 is formed by an assembly of two symmetrical half-levers 60', 60", between which the free end of the suspension arm 34 is housed."

Applicants therefore respectfully assert that Figure 4 and the noted passage on page 8 clearly indicate the necessary 'datum' for the symmetrical half-levers 60' and 60", as well as clearly indicating that it is the two half-levers which are symmetrical to one another; and

- 2) Applicants have amended claim 17 to recite "for the suspension pin", which does find support in independent claim 11 as originally filed.

In response to the above amendments and comments, Applicants therefore respectfully request withdrawal of the existing 35 U.S.C. § 112, second paragraph rejection of claims 17-20.

The 35 U.S.C. § 103(a) Rejection of Claims 11-18 French Patent '167 in view of either Klutz or Furuya

The Examiner has rejected claims 11-18 as being obvious over French Patent '167 in view of Klutz or Furuya. Applicants respectfully traverse this rejection and

submit that neither the French Patent '167, nor either Klutz or Furuya, alone or in combination, discloses each and every aspect of independent claim 11.

As shown in the French Patent '167, the charging device comprises an oscillating charging tube that is suspended by means of two long horizontal arms, like a pendulum in a rotary cylinder. The extremities of the suspension arms are mounted on bearings in the rotary cylinder. One of these extremities carries an actuation lever. A knee-shaped control lever is fixed to the cylinder by means of a bearing. A first extremity of the control lever is connected by a connecting rod to an oscillating mechanism. A second extremity of the control lever bears a slide, which is guided in a closed runner of the activating lever. The French Patent '167 does not teach how to remove and reinstall the charging tube.

With particular respect, therefore, to claim 11, please note that the French Patent '167 does not teach or suggest the following:

1) *"[A] cylindrical suspension pin that is associated with each suspension arm for pivotably connecting it to said suspension rotor, each of said cylindrical suspension pins being arranged in a retractable manner in a bearing of said suspension rotor", as specifically recited in claim 11;*

2) *"[A] control lever connected by means of an articulated joint to said suspension rotor, said driving mechanism being connected to said control lever so as to transmit to the latter said pivoting torque", as specifically recited in claim 11;*
and

3) *"[A] stop on said control lever and a counterstop on a suspension arm, said stop and said counterstop engaging with each other to transmit said pivoting torque to said suspension arm, and are designed in such a way that they can be disengaged by a translation movement of the two suspension arms, after*

withdrawal of said cylindrical suspension pins for removal of said chute", as is also specifically recited in claim 11.

It will be readily appreciated that these distinguishing features cooperate to provide a charging device that is distinguished by a very simple and very compact suspension of the chute, which enables large pivoting torques to be transmitted to the chute, while also ensuring easy removal and installation of the chute.

Moreover, Applicants assert that neither Klutz nor Furuya compensate the French Patent '167 deficiencies in this regard.

In particular, Klutz merely teaches that *"the chute 2 is suspended pivotally by means of a clevis 8 from a ring 10, capable of rotating about the central vertical axis 0. The angle of inclination of the chute relative to the horizontal may be adjusted by means of an adjusting device 112, which is known per se and may simply consist of threaded male and female elements"*, (See, column 2, lines 28-34).

Thus, Klutz is devoid of any disclosure that could have suggested the chute suspension of the present invention, as explicitly recited in independent claim 11. Moreover, it is respectfully submitted that Klutz cannot suggest any pertinent teaching with regard to connecting a chute to a pivoting mechanism, as Klutz only teaches a static adjustment of the angle of inclination of the chute.

Furuya is similarly incapable of rendering obvious, at least, the recited portions of claim 11 discussed above. In particular, Figure 3 of Furuya depicts a chute 13 with hooked suspension arms removably engaging suspension pins 14 of a rotating cylinder 1. Consequently, Furuya does not teach or suggest that the pins 14 may be arranged in a retractable manner in a bearing of the rotating cylinder. Moreover, for transmitting the pivoting torque to the chute 13, Furuya teaches to connect the distribution chute 13 by means of articulated links 15 to the lower end of a rotating outer cylinder 4. Thus, Furuya is also devoid of any teaching or

suggestion of claim 11's 'stop' on a control lever, and 'counter-stop' on a suspension arm for transmitting the pivoting torque to the chute.

As the French Patent '167 does not teach each and every aspect of, at least, independent claim 11, neither Klutz nor Furuya adding any pertinent disclosure to that of the French Patent '167 in this regard, Applicant respectfully requests withdrawal of the rejection of claims 11, and those dependent thereon, on this basis alone. Should the Examiner reapply the existing rejection in the present case, Applicants respectfully request that the Examiner point out where in the cited references those noted sections, at least, of claim 11 may be found.

Should the Examiner believe that there remains any outstanding issues, Applicants respectfully request that the Examiner contact Applicants' Representative for a telephonic interview, Examiner's Amendment or the like.

Newly Added Claim 21

Applicants have newly proposed independent claim 21, in accordance with the Examiner's indication of allowable subject matter contained in claim 19. Claim 21 therefore reflects the subject matter of claim 19 in combination with base claim 11.

Applicants earnestly believe that claim 21 clearly define over the cited prior art of record, however, should the Examiner believe that there remains any outstanding issues, Applicants respectfully request that the Examiner contact Applicants' Representative so as to expedite resolution of these outstanding issues, via an Examiner's Amendment or the like.

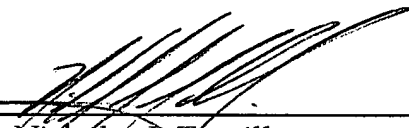
CONCLUSION

In view of the remarks above, it is respectfully submitted that claims 11-21 are allowable, and an early action to that effect is earnestly solicited.

The Examiner is invited to contact the undersigned at the number below to expedite resolution of any issues that the Examiner may consider to remain unresolved. In particular, should a Notice of Allowance not be forthcoming, the Examiner is requested to phone the undersigned for a telephonic interview, an Examiner's amendment, or the like, while the outstanding issues are fresh in the mind of the Examiner.

It is believed that no additional fees or deficiencies in fees are owed beyond the fee for the accompanying Two-Month Extension of Time. However, authorization is hereby given to charge our Deposit Account No.13-0235 in the event any additional fees are owed.

Respectfully submitted,

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